Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 310-357 are pending in the application, with claims 310 and 354 being the independent claims. Claims 1, 58, 110, and 164-309 are sought to be canceled without prejudice to or disclaimer of the subject matter therein. New claims 310-357 are sought to be added.

New claims 310-353 are directed to a method for delivering a polypeptide into a vertebrate, comprising administering into a tissue or cavity of the vertebrate a composition comprising a polynucleotide, a salt, and an auxiliary agent in an aqueous solution, wherein the salt is present at a molar concentration ranging from about 50 mM to 250 mM, and wherein the aqueous solution is essentially free of chloride ion. Support for these new claims may be found throughout the specification, *inter alia*, at page 8, paragraph [0015]; at page 27, paragraph [0072], to page 28, paragraph [0076]; at page 30, paragraph [0078], to page 32, paragraph [0085]; and in Examples 10 and 11, at pages 91-92.

New claims 354-357 are directed to the corresponding composition recited in claim 310, with the exception that the anion X of the salt is defined as phosphate, acetate, sulfate, or pyruvate. Support for these new claims may be found throughout the specification, *inter alia*, at page 7, paragraph [0014], lines 9-22; at page 27, paragraph [0072], to page 28, paragraph [0076]; at page 30, paragraph [0078], to page 32, paragraph [0085]; and in Examples 10 and 11, at pages 91-92.

New claims 310, 312, 313, 315, 316, 318-326, 328-331, 334, 336, 339-343, 347-349, 351, and 352 read on the species of salt, polypeptide, transfection facilitating agent, auxiliary agent, and mode of delivery elected by Applicants, which are, respectively, sodium

bicarbonate, influenza nucleoprotein, cationic lipids, Pluronic® R 25R2, and intramuscular delivery.

New claims 310-354 are analogous to canceled claims 216-262 and 58, with the exception that none of the new claims are analogous to canceled claims 234, 240-245, 246-248, and 262.

New claims 314-325 are dependent claims directed to specific poloxamers and reverse poloxamers at particular concentrations or concentration ranges. New claims 317-325 are analogous to canceled claims 217-225, with the exception that a chemical description identifying each poloxamer has been substituted for the Pluronic® or Pluronic® R trademarked name used in the corresponding canceled claim. Applicants have also amended paragraphs [0096] to [0097] of the specification to include these chemical descriptions for the various Pluronic® or Pluronic® R poloxamers recited in new claims 317-325.

The chemical characteristics named in these descriptions are inherent in each of the Pluronic® poloxamers or Pluronic® R reverse poloxamers and were well known to those of skill in the art at the time of filing of the application.

Each poloxamer in the Pluronic® series is identified by alphanumerical designation. The alphabetical portion of the designation indicates the physical form of the product ("L" for liquid, "P" for paste, and "F" for solid) and is followed by a numerical designation that can be used to calculate both the approximate molecular weight of poly(oxypropylene) ("hydrophobe") and the approximate weight percentage ("wt. %") of poly(oxyethylene) ("hydrophile") in the poloxamer. The approximate molecular weight of poly(oxypropylene) is obtained by multiplying by 300 the first digit of the numerical designation (or the first two

digits, if the number contains three digits), while the approximate weight percentage of poly(oxyethylene) is obtained by multiplying the last digit by 10. For example, Pluronic® F68 is a solid material in which the approximate molecular weight of poly(oxypropylene) is 1800 (6 x 300) and the approximate percentage of poly(oxyethylene) is 80%, by weight, of the molecule (8 x 10). Thus, Pluronic® F68 can be identified as a poloxamer having an approximate hydrophobe molecular weight of 1800 and an approximate hydrophile weight percentage of 80%.

For each reverse poloxamer in the "Pluronic® R" series, the approximate molecular weight of poly(oxypropylene) ("hydrophobe") in the reverse poloxamer is obtained by multiplying by 100 the first two digits preceding the "R" in each designation. The approximate weight percent of the poly(oxyethylene) ("hydrophile") is obtained by multiplying the number following the "R" by ten.

Support for this type of chemical description can be found in Schmolka, I.R., *J. Am. Oil Chemists' Soc. 54*:110-116 (1977) (copy attached as Exhibit 1). Support for the chemical descriptions for specific Pluronic® or Pluronic® R poloxamers can be found inherently in the specific Pluronic® or Pluronic® R tradename in the application as originally filed, and explicitly in the product literature published by BASF Corporation, manufacturer of the Pluronic® and Pluronic® R poloxamers. A copy of an example of BASF Corporation's product literature describing the nomenclature and chemical characteristics of Pluronic® and Pluronic® R poloxamers is attached as Exhibit 2. Support for new claims 314 and 315, and the ranges of approximate hydrophobe molecular weight and approximate hydrophile weight percentage recited by these claims, can be found in the range of specific Pluronic® and Pluronic® R poloxamers listed in the specification at

amended paragraphs [0096] and [0097].

These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

I. The Double Patenting Rejection under 35 U.S.C. § 101

The Examiner has objected to claims 187, 235, and 281 under 37 C.F.R. § 1.75 as being substantial duplicates of claims 186, 235, and 280, respectively. Specifically, the Examiner alleges that claim 187 differs from claim 186, claim 235 differs from claim 234, and claim 281 differs from claim 280, only in that claims 187, 235 and 281 substitute the term "immunogenic" for the term "antigenic" found in claims 186, 234 and 280. The Examiner further alleges that because these terms are synonyms, claims 186, 234, and 280 are drawn to precisely the same inventions as claims 187, 235, and 281, respectively. (Office Action, at page 4.)

To expedite prosecution and without acquiescing in the propriety of the rejection, Applicants have cancelled claims 186, 187, 234, 235, 280, and 281, thereby rendering moot the Examiner's objection to these claims.

Applicants assert that the double patenting rejection of claims 186, 187, 234, 235, 280, and 281 under 35 U.S.C. § 101 has been overcome and respectfully request the Examiner to reconsider and withdraw this rejection.

II. The Rejection of the Claims Under 35 U.S.C. § 112, Second Paragraph

The Examiner has rejected claims 177-179, 184-189, 202, 215, 232-237, 247, 262-306, 308 and 309 under 35 U.S.C.§112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. (Office Action, at page 5.)

Specifically, the Examiner asserts that claims 177-179 are allegedly indefinite because it is unclear what is intended by "dissociation products" of "chloride ion." The Examiner alleges that the specification fails to teach any dissociation products of chloride ion. (Office Action, at page 5, lines 7-9.)

To expedite prosecution and without acquiescing in the propriety of the rejection, Applicants have cancelled claims 177-179, thereby rendering moot the Examiner's rejection of these claims. Accordingly, Applicants request that the Examiner withdraw this rejection.

The Examiner further asserts that claims 179, 263-306, 308 and 309 are allegedly indefinite because it is unclear what is intended by "substantially free of chloride ion." The Examiner states that the definition of this phrase provided by Applicants, at page 31, paragraph [0083], of the specification, is allegedly inadequate because it is not clear what is intended by "a significant level" of transcription or expression, and thus one of skill in the art cannot know the metes and bounds of these claims. (Office Action, at page 5, lines 10-16.)

To expedite prosecution and without acquiescing in the propriety of the rejection, Applicants have cancelled claims 179, 263-306, 308 and 309, thereby rendering moot the Examiner's rejection of these claims. Accordingly, Applicants request that the Examiner withdraw this rejection.

Applicants note that claim 310 is analogous to claim 263. However, Applicants have replaced the phrase "substantially free of chloride ion" with the phrase "essentially free of chloride ion." This second phrase is defined and exemplified in the specification at page 31, paragraph [0083].

The Examiner also asserts that claims 192-200 and 217-225 are allegedly indefinite because they recite trademarks and trade names. The Examiner alleges that because the recited trademarks are used as limitations to identify a particular material, the claims are indefinite. (Office Action, at pages 5-6.)

To expedite prosecution and without acquiescing in the propriety of the rejection, Applicants have cancelled claims 192-200 and 217-225, thereby rendering moot the Examiner's rejection of these claims. Accordingly, Applicants request that the Examiner withdraw this rejection.

With respect to the use of the Pluronic® or Pluronic® R trademark names to identify specific poloxamers, Applicants note that new claims 317-325 are analogous to cancelled claims 192-200 and 217-225 in that new claims 317-325 recite particular poloxamers. New claims 317-325, however, identify each specific poloxamer by reciting the approximate molecular weight of the hydrophobe component and the approximate weight percentage of ethylene oxide (the hydrophile component) of the poloxamer, rather than by reciting the specific Pluronic® or Pluronic® R trademark name. The use of these two chemical properties is well known to those of skill in the art as a method of identifying particular poly(oxyethylene)-poly(oxypropylene) block copolymers. *See* Schmolka, I.R., *J. Am. Oil Chemists' Soc. 54*:110-116 (1977) (copy attached as Exhibit 1). The correspondence of these two chemical properties with specific Pluronic® or Pluronic® R poloxamers is also

known to those of skill in the art. *See* "Nomenclature and the Pluronic® Surfactant Grid," BASF Corporation (http://www.basf.com/static/OpenMarket/Xcelerate/Preview_cid-982931199731_pubid-97436729499_c-Article.html) (copy attached as Exhibit 2).

The Examiner further states that the terms "enhanced" and "modulated" in claims 202, 247, and 295 are relative terms that allegedly render these claims indefinite. The Examiner alleges that these terms are not defined by the claim, that the specification does not provide a standard for ascertaining the requisite degree, and that one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The Examiner also alleges that claims 202, 247, and 295 also recite "such an enhanced or modulated immune response" without antecedent basis. (Office Action, at page 6.)

To expedite prosecution and without acquiescing in the propriety of the rejection, Applicants have cancelled claims 202, 247 and 295, thereby rendering moot the Examiner's rejection of these claims. Accordingly, Applicants request that the Examiner withdraw this rejection.

The Examiner also alleges that claims 215, 262, and 309 are indefinite because they require reducing the amount of a polynucleotide required to obtain a desired clinical response in a vertebrate, but fail to provide any standard by which to determine whether or not a given amount constitutes a reduction. The Examiner also alleges that claims 215, 262, and 309 lack essential method steps, such omission amounting to a gap between the steps, and that no step is recited in which the amount of polynucleotide is reduced. (Office Action, at page 6, last paragraph, to page 7, line 3.)

The Examiner alleges further that claims 215, 262, and 309 are indefinite because the metes and bounds of "the amount of polynucleotide required to obtain a desired clinical

response in a vertebrate" are unclear, and that, because the claim fails to correlate any specific amount of polynucleotide with any specific clinical response, one of skill in the art cannot know if an amount which gives rise to one response, but not to another response, infringes the claim or not. The Examiner also alleges that it is unclear which is intended by the phrase "clinical response," that this phrase is not defined in the specification, and that it is not clear how the term "clinical" is meant to delimit the scope of the "response." (Office Action, at page 7, lines 3-11.)

To expedite prosecution and without acquiescing in the propriety of the rejection, Applicants have cancelled claims 215, 262, and 309, thus rendering moot the Examiner's rejection of these claims. Accordingly, Applicants request that the Examiner withdraw this rejection.

Lastly, the Examiner alleges that claims 184-189, 232-237, and 278-283 are indefinite because the distinction between antigenic and immunogenic is unclear, as these terms are allegedly recognized in th art as synonyms. The Examiner states that because the difference between the terms is not apparent, one of skill in the art allegedly cannot know what scope of protection Applicants seek. (Office Action, at page 7, last paragraph.)

To expedite prosecution and without acquiescing in the propriety of the rejection, Applicants have cancelled claims 184-189, 232-237, and 278-283, thus rendering moot the Examiner's rejection of these claims. Accordingly, Applicants request that the Examiner withdraw this rejection.

However, Applicants note that they have distinguished between these two terms in the specification. See the specification, at page 54, paragraph [0130], lines 1-4. Applicants thus assert that the difference between the terms "antigenic" and "immunogenic" is clear and

that one of skill in the art would recognize the scope of any claim reciting either of these terms.

Applicants assert that the rejection of claims 177-179, 184-189, 202, 215, 232-237, 247, 262-306, 308 and 309 under 35 U.S.C.§112, second paragraph, has been overcome and respectfully request the Examiner to reconsider and withdraw this rejection.

III. The Rejection of the Claims under 35 U.S.C. § 103 (a)

The Examiner has rejected claims 1, 58, 110, 164, 166, 175, 176, 180-184, 186, 187, 191-193, 195, 197, 199, 202, 204-206, 209, 210, 212-218, 220, 222, 224, 226, 228-232, 235, 238-245, 247, 249-251, 255-257, 259, 260, and 262 under 35 U.S.C. § 103(a) as being unpatentable over Liu *et al.* (U.S. Pat. No. 6,120,794) ("Liu") in view of Ulmer, *Science 259*:1745-1749 (1993) ("Ulmer"), Wheeler *et al.* (U.S. Pat. No. 5,861,397) ("Wheeler"), Gregoriadis, *FEBS Lett. 402*:107-110 (1990) ("Gregoriadis"), and Ishii *et al.*, *AIDS Res. Hum. Retrovir. 13*:1421-1428 (1997) ("Ishii"). (Office Action, at page 8.)

The Examiner has also rejected claims 240 and 242 under 35 U.S.C. § 103(a) as allegedly being upatentable over Liu, Ulmer Wheeler, Gregoriadis, and Ishii as applied to the previous claims above, and further in view of Wheeler (WIPO Publ. No. WO 00/57917) ("Wheeler-917"). (Office Action, at page 14, lines 2-6.)

To expedite prosecution and without acquiescing in the propriety of the rejection, Applicants have cancelled claims 1, 58, 110, 164, 166, 175, 176, 180-184, 186, 187, 191-193, 195, 197, 199, 202, 204-206, 209, 210, 212-218, 220, 222, 224, 226, 228-232, 235, 238-245, 247, 249-251, 255-257, 259, thereby rendering moot the Examiner's rejection of these claims. Accordingly, Applicants request that the Examiner withdraw these rejections.

Applicants have added new claims 310-357, which are directed to a method, and a corresponding composition, for delivering a polypeptide into a vertebrate, comprising administering into a tissue or cavity of the vertebrate a composition comprising a polynucleotide, a salt, and an auxiliary agent in an aqueous solution, wherein the salt is present at a molar concentration ranging from about 50 mM to about 250 mM, and wherein the aqueous solution is essentially free of chloride ion.

Applicants assert that neither Liu, Ulmer Wheeler, Gregoriadis, Ishii, Wheeler, or Wheeler-917, alone or in combination, would render obvious the inventions of new claims 310-357.

In order to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 in view of a combination of prior art references, the following two conditions must be met: 1) the prior art must suggest to those of ordinary skill that they should perform the claimed method; and 2) the prior art must also provide a reasonable expectation of success. *In re Vaeck*, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991) ("Both the suggestion and the reasonable expectation of success must be found in the prior art, not in the applicant's disclosure."). However, none of the documents cited by the Examiner (Liu, Ulmer, Wheeler, Gregoriadis, Ishii, Wheeler, or Wheeler-917), alone or in combination, provide either a suggestion to perform the claimed invention or a reasonable expectation that the claimed invention would be successful, for the following reasons.

Neither Ulmer, Wheeler, Gregoriadis, Ishii, nor Wheeler-917 disclose or fairly suggest the use of poloxamers in compositions useful in delivering a polynucleotide to the cells of a vertebrate. None of these references would have provided the requisite motivation to use one or more poloxamers in the such compositions, and none would have provided a

reasonable expectation of that polynucleotide compositions containing poloxamers would be successful in transferring polynucleotides to vertebrate cells.

Liu does appear to disclose the use of poloxamers in the emulsion and micelle formulations described. See Liu, at columns 15-16, Table 3; at column 20, Table 6; and at column 21, Example 11, which list Pluronic® L63 or "Pluronic F" as a component of one or more of the disclosed formulations. However, these formulations appear to contain either phosphate buffered saline ("PBS") or saline, both of which contain 150 mM NaCl. Thus, the poloxamer formulations disclosed in Liu contain a substantial amount of chloride ion. New claims 310-357 require that the composition be "essentially free of chloride ion." Thus, Liu does not teach the use of polynucleotide/salt/poloxamer compositions essentially free of chloride ion, nor does it suggest that polynucleotide/salt/poloxamer compositions would be more effective in transfecting polynucleotides into a cell if such compositions were essentially free of chloride ion. Liu thus does not provide the motivation or reasonable expectation of success required to render the invention of new claims 310-357 obvious.

Further, Liu, when combined with Ulmer, Wheeler, Gregoriadis, Ishii, or Wheeler-917, does not render the claimed invention obvious. Ulmer, Gregoriadis, or Ishii does not teach the use of salt concentrations (50 mM-250 mM), with essentially no chloride ion, in polynucleotide transfection formulations, or suggest the use of such formulations. Ulmer appears to disclose polynucleotide transfection formulations in 0.9% saline or phosphate buffered saline, both of which contain substantial amounts of chloride ion. See footnotes 14 and 20 on pages 1748 and 1749, respectively. Gregoriadis, similarly, describe polynucleotide compositions containing 150 mM sodium phosophate buffer supplemented with 0.9% sodium chloride (phosphate buffered saline). See page 107, right-hand column,

second paragraph in the "Materials and methods" section. The polynucleotide transfection solutions disclosed in Ishii also contain phosphate-buffered saline and thus substantial amounts of chloride ion. None of these references describe the use of polynucleotide transfection solutions essentially free of chloride ion, or would have suggested to one of ordinary skill in the art that the use of such solutions or that such chloride-free solutions would be successful. Thus, these references, either alone or in combination with Liu, would not have rendered the inventions of new claims 310-357 obvious.

Wheeler discloses the use of a DNA transfection formulation containing polynucleotide in HEPES buffer (no concentration is disclosed) and 2,400 mg/L sodium bicarbonate, but no added chloride ion. The sodium bicarbonate concentration, however, is equivalent to 28.6 mM, which is less than the 50 mM minimum required by Applicants' current claims. Wheeler-917, which describes polynucleotide solutions useful in the immunization of a vertebrate, teaches that a variety of buffers may be used in preparing the disclosed polynucleotide compositions. However, Wheeler-917 lists phosphate buffered saline and normal saline as suitable buffers and most of the examples include the use of polynucleotide compositions combined with phosphate buffered saline, thus teaching away from the use of polynucleotide compositions that are essentially free of chloride ion. Neither reference would have provided the necessary motivation to one of skill in the art to combine its teachings with those of Liu. Thus, neither of these references, either alone or in combination with Liu, would have rendered the inventions of new claims 310-357 obvious.

Applicants assert that the rejection of claims 1, 58, 110, 164, 166, 175, 176, 180-184, 186, 187, 191-193, 195, 197, 199, 202, 204-206, 209, 210, 212-218, 220, 222, 224, 226, 228-232, 235, 238-245, 247, 249-251, 255-257, 259, 260, and 262 under 35 U.S.C. § 103(a)

has been overcome and respectfully request the Examiner to reconsider and withdraw this rejection.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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Version with markings to show changes made

In the Specification:

Pending paragraph [0096] was substituted with the following paragraph [0096]:

[0096] Poloxamers of the present invention include, but are not limited to commercially available poloxamers such as Pluronic® L121 (ave. MW: 4400; approx. MW of hydrophobe, 3600; approx. wt. % of hydrophile, 10%), Pluronic® L101 (ave. MW: 3800; approx. MW of hydrophobe, 3000; approx. wt. % of hydrophile, 10%), Pluronic® L81 (ave. MW: 2750; approx. MW of hydrophobe, 2400; approx. wt. % of hydrophile, 10%), Pluronic® L61 (ave. MW: 2000; approx. MW of hydrophobe, 1800; approx. wt. % of hydrophile, 10%), Pluronic® L31 (ave. MW: 1100; approx. MW of hydrophobe, 900; approx. wt. % of hydrophile, 10%), Pluronic® L122 (ave. MW: 5000; approx. MW of hydrophobe, 3600; approx. wt. % of hydrophile, 20%), Pluronic® L92 (ave. MW: 3650; approx. MW of hydrophobe, 2700; approx. wt. % of hydrophile, 20%), Pluronic® L72 (ave. MW: 2750; approx. MW of hydrophobe, 2100; approx. wt. % of hydrophile, 20%), Pluronic® L62 (ave. MW: 2500; approx. MW of hydrophobe, 1800; approx. wt. % of hydrophile, 20%), Pluronic® L42 (ave. MW: 1630; approx. MW of hydrophobe, 1200; approx. wt. % of hydrophile, 20%), Pluronic® L63 (ave. MW: 2650; approx. MW of hydrophobe, 1800; approx. wt. % of hydrophile, 30%), Pluronic® L43 (ave. MW: 1850; approx. MW of hydrophobe, 1200; approx. wt. % of hydrophile, 30%), Pluronic® L64 (ave. MW: 2900; approx. MW of hydrophobe, 1800; approx. wt. % of hydrophile, 40%), Pluronic® L44 (ave. MW: 2200; approx. MW of hydrophobe, 1200; approx. wt. % of

hydrophile, 40%), Pluronic® L35 (ave. MW: 1900; approx. MW of hydrophobe, 900; approx. wt. % of hydrophile, 50%), Pluronic® P123 (ave. MW: 5750; approx. MW of hydrophobe, 3600; approx. wt. % of hydrophile, 30%), Pluronic® P103 (ave. MW: 4950; approx. MW of hydrophobe, 3000; approx. wt. % of hydrophile, 30%), Pluronic® P104 (ave. MW: 5900; approx. MW of hydrophobe, 3000; approx. wt. % of hydrophile, 40%), Pluronic® P84 (ave. MW: 4200; approx. MW of hydrophobe, 2400; approx. wt. % of hydrophile, 40%), Pluronic® P105 (ave. MW: 6500; approx. MW of hydrophobe, 3000; approx. wt. % of hydrophile, 50%), Pluronic® P85 (ave. MW: 4600; approx. MW of hydrophobe, 2400; approx. wt. % of hydrophile, 50%), Pluronic® P75 (ave. MW: 4150; approx. MW of hydrophobe, 2100; approx. wt. % of hydrophile, 50%), Pluronic® P65 (ave. MW: 3400; approx. MW of hydrophobe, 1800; approx. wt. % of hydrophile, 50%), Pluronic® F127 (ave. MW: 12600; approx. MW of hydrophobe, 3600; approx. wt. % of hydrophile, 70%), Pluronic® F98 (ave. MW: 13000; approx. MW of hydrophobe, 2700; approx. wt. % of hydrophile, 80%), Pluronic® F87 (ave. MW: 7700; approx. MW of hydrophobe, 2400; approx. wt. % of hydrophile, 70%), Pluronic® F77 (ave. MW: 6600; approx. MW of hydrophobe, 2100; approx. wt. % of hydrophile, 70%), Pluronic® F108 (ave. MW: 14600; approx. MW of hydrophobe, 3000; approx. wt. % of hydrophile, 80%), Pluronic® F98 (ave. MW: 13000; approx. MW of hydrophobe, 2700; approx. wt. % of hydrophile, 80%), Pluronic® F88 (ave. MW: 11400; approx. MW of hydrophobe, 2400; approx. wt. % of hydrophile, 80%), Pluronic® F68 (ave. MW: 8400; approx. MW of hydrophobe, 1800; approx. wt. % of hydrophile, 80%), Pluronic® F38 (ave. MW: 4700; approx. MW of hydrophobe, 900; approx. wt. % of hydrophile, 80%).

Pending paragraph [0097] was substituted with the following paragraph [0097]:

[0097] Reverse poloxamers of the present invention include, but are not limited to Pluronic® R 31R1 (ave. MW: 3250; approx. MW of hydrophobe, 3100; approx. wt. % of hydrophile, 10%), Pluronic® R 25R1 (ave. MW: 2700; approx. MW of hydrophobe, 2500; approx. wt. % of hydrophile, 10%), Pluronic® R 17R1 (ave. MW: 1900; approx. MW of hydrophobe, 1700; approx. wt. % of hydrophile, 10%), Pluronic® R 31R2 (ave. MW: 3300; approx. MW of hydrophobe, 3100; approx. wt. % of hydrophile, 20%), Pluronic® R 25R2 (ave. MW: 3100; approx. MW of hydrophobe, 2500; approx. wt. % of hydrophile, 20%), Pluronic® R 17R2 (ave. MW: 2150; approx. MW of hydrophobe, 1700; approx. wt. % of hydrophile, 20%), Pluronic® R 12R3 (ave. MW: 1800; approx. MW of hydrophobe, 1200; approx. wt. % of hydrophile, 30%), Pluronic® R 31R4 (ave. MW: 4150; approx. MW of hydrophobe, 3100; approx. wt. % of hydrophile, 40%), Pluronic® R 25R4 (ave. MW: 3600; approx. MW of hydrophobe, 2500; approx. wt. % of hydrophile, 40%), Pluronic® R 22R4 (ave. MW: 3350; approx. MW of hydrophobe, 2200; approx. wt. % of hydrophile, 40%), Pluronic® R 17R4 (ave. MW: 3650; approx. MW of hydrophobe, 1700; approx. wt. % of hydrophile, 40%), Pluronic® R 25R5 (ave. MW: 4320; approx. MW of hydrophobe, 2500; approx. wt. % of hydrophile, 50%), Pluronic® R 10R5 (ave. MW: 1950; approx. MW of hydrophobe, 1000; approx. wt. % of hydrophile, 50%), Pluronic® R 25R8 (ave. MW: 8550; approx. MW of hydrophobe, 2500; approx. wt. % of hydrophile, 80%), Pluronic® R 17R8 (ave. MW: 7000; approx. MW of hydrophobe, 1700; approx. wt. % of hydrophile, 80%), and Pluronic® R 10R8 (ave. MW: 4550; approx. MW of hydrophobe, 1000; approx. wt. % of hydrophile, 80%).

In the claims:

Claims 1, 58, 110, and 164-309 were canceled.

New claims 310-357 were added.